

REMARKS

The currently pending claims are supported by the specification and are patentable over the prior art. New claim 62 recites "...at least one neuron restrictive silencer element that binds neuron restrictive silencer factor..." Support for this limitation is found in original claim 7. Silencer elements are described on numerous pages throughout the application but support for silencer element consensus sequences that are known in the art can be found on lines 9-10 of page 10 of the present application. NRS elements (also known as NRSEs) were well characterized at the time the present application was filed. See, e.g., Coulson et al. (Cancer Res. 59:5123-5127, 1999), Lonnerberg et al. (J. Biol. Chem. 271:33358-33365, 1996), Schoenherr et al. (Proc. Natl. Acad. Sci. USA 93:9881-9886, 1996), and Kallunki et al. (270:21291-21298, 1995). In the present application, the NRS element sequence from the human synapsin gene (claim 63) is found on line 28 of page 24 as SEQ ID NO:2 (claim 64). Further support for a NRS element can be found in the Examples section of the present application. Examples 1-3 describe in vitro experimental data showing silencing of gene expression by a NRS element while Example 4 describes in vivo experimental data showing silencing of gene expression by a NRS element. Support for SEQ ID NO:1 (claim 66) is found on page 24, line 24, while support for the human phosphoglycerate kinase gene (claim 65) can be found on page 24, line 26. Support for hypoxia inducible factor-1 (HIF-1, claim 67) can be found on page 28, lines 22-23. Support for a viral promoter (claim 68) can be found on page 24, lines 9-10. Support for a mammalian promoter (claim 69) and a cell-type specific promoter (claim 70) can be found on page 30, lines 1-2. Support for the genes recited in claim 71 of the application can be found in original claim 18. Support for the sequences listed in the last two sentences of claim 72 can be found in page 9, lines 13-22. Support for an AAV particle (claim 73) and an NF-kB responsive

element (claim 74) can be found in original claim 25 and original claim 17, respectively.

Support for the following limitation of claim 74 "at least one nucleotide sequence is silenced when the vector is incorporated in a cell subjected to a condition that results in NF-kB binding to the NF-kB responsive element" can be found in Example 3, beginning page 30, line 18.

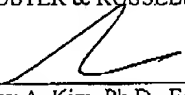
No new matter has been added. Allowance of the application is respectfully requested. The Commissioner is hereby authorized to charge any underpayment of fees under 37 CFR 1.16 or 1.17 as required by this paper to Deposit Account 50-3110.

The examiner is cordially invited to call the undersigned if clarification is needed on any matter within this Reply, or if the examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

RUDEN, MCCLOSKEY, SMITH,
SCHUSTER & RUSSELL, P.A.

Dated: November 18, 2004


Stanley A. Kim, Ph.D., Esq.
Registration No. 42,730
222 Lakeview Avenue, Suite 800
West Palm Beach, FL 33401-6112
Tel: (561) 838-4500
Fax: (561) 514-3412

Docket No: 8002-1